

## INDEX

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## 1. Introduction (ARMS 2.0)

**Agricultural Research Management System** V- 2.0

Home User Manual Login

**About Us**

**Agricultural Research Management System 2.0 (ARMS 2.0)** is an important tool developed and implemented in ICAR for agricultural research management and monitoring on real time basis. In this system each scientist needs to upload his or her scientific achievements in various categories such as Research Projects, Technology, IPRs, Capacity Building Activities, Publications (Books and Journals), Awards etc. The information submitted by the scientists needs to be vetted by institute nodal officer nominated by the same or reporting officer of the scientist. This system will be used for information management and evaluation of scientific research of the council apart from generation of various reports at different levels. System has inbuilt mechanism to connect to Online APAR (SPARROW), PMS and KRISHI portal of ICAR to assist scientists to fill in their achievements conveniently.

All scientists of ICAR would need to enter the information into the system only once, this would save the scientist from the hassle to provide information multiple times for different reporting requirements. System will have provision to provide information in various report formats (Progress report of Division/ Institute/ SMD/ Annual report material of Institute). In future, information generated from this system will also be linked with different dashboards of Government of India.

**General Information**

Any ICAR Scientist can login to the ARMS 2.0 using ICAR login credential i.e. ID ex: username@icar.gov.in and Password (same as being used to access ICAR email).

Any issue/ problem faced during use of ARMS 2.0 should be reported through ICAR's e-support system <https://esupport.icar.gov.in/>.

**Notification**

**Feedback and Suggestion**

Please share your feedback or suggestion by sending email to [support.arms@icar.gov.in](mailto:support.arms@icar.gov.in) for its further improvement.

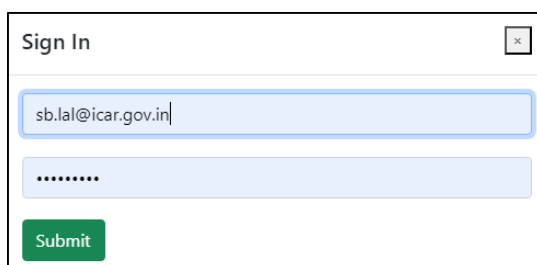
Activate Windows  
Go to Settings to activate Windows.

**Agricultural Research Management System 2.0 (ARMS 2.0)** is an important tool developed and implemented in ICAR for agricultural research management and monitoring on real time basis. In this system each scientist needs to upload his or her scientific achievements in various categories such as Research Projects, Technology, IPRs, Capacity Building Activities, Publications (Books and Journals), Awards etc. The information submitted by the scientists needs to be vetted by institute nodal officer nominated by the same or reporting officer of the scientist. This system will be used for information management and evaluation of scientific research of the council apart from generation of various reports at different levels. System has inbuilt mechanism to connect to Online APAR (SPARROW), PMS and KRISHI portal of ICAR to assist scientists to fill in their achievements conveniently.

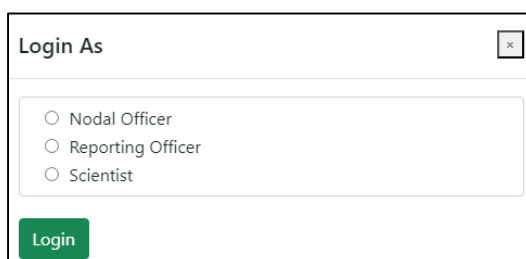
All scientists of ICAR would need to enter the information into the system only once, this would save the scientist from the hassle to provide information multiple times for different reporting requirements. System will have provision to provide information in various report formats (Progress report of Division/ Institute/ SMD/ Annual report material of Institute). In future, information generated from this system will also be linked with different dashboards of Government of India.

## 2. How to Access ARMS 2.0

You can Login with **ICAR email address** i.e. [user@icar.gov.in](mailto:user@icar.gov.in) and password **same as email's password**.



After giving correct email address and password the following window appears:



You need to **Choose Role** from the list of displayed roles to login:

- (i) Nodal Officer
- (ii) Scientist
- (iii) Reporting Officer
- (iv) Reviewing Officer
- (v) ADG
- (vi) DDG
- (vii) DG

## 3. NODAL OFFICER (Login as Nodal Officer)

In Nodal Officer login the following are the options available:

- Assign
- Project Approval
- Approved Project List
- Publication Approval



Fig. 1 – Options available in Nodal Officer login

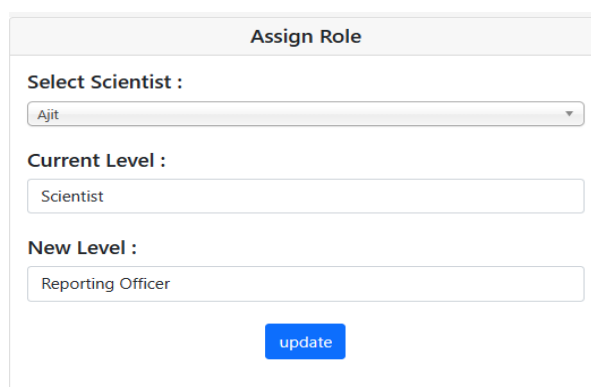
### 3.1 Assign

Following are the options to be used for defining roles of individuals in ARMS and assigning their respective officers.

- Assign Role
- Assign Reporting Officer
- Assign Reviewing Officer

#### 3.1.1 Assign Role

To assign any role to any individual, go to Assign→Assign Role→Select Scientist name to whom role is to be assigned→Current level (if any) in system will appear automatically→Select new level→Update

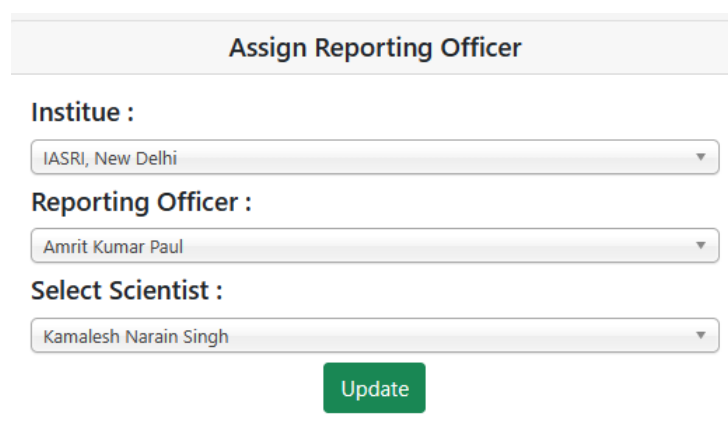


The screenshot shows a web form titled "Assign Role". It has three dropdown menus. The first is labeled "Select Scientist:" and has "Ajit" selected. The second is labeled "Current Level:" and has "Scientist" selected. The third is labeled "New Level:" and has "Reporting Officer" selected. At the bottom center of the form is a blue button labeled "update".

Fig. 2 – Assign Role to Individuals

#### 3.1.2 Assign Reporting Officer

To assign reporting officer of the individual go to Assign Reporting Officer→Institute will come automatically →Select reporting officer name→ Select scientist name whose reporting officer is to be updated →Update



The screenshot shows a web form titled "Assign Reporting Officer". It has three dropdown menus. The first is labeled "Institute:" and has "IASRI, New Delhi" selected. The second is labeled "Reporting Officer:" and has "Amrit Kumar Paul" selected. The third is labeled "Select Scientist:" and has "Kamalesh Narain Singh" selected. At the bottom center of the form is a green button labeled "Update".

Fig 3. – Assign Reporting Officer

### 3.1.3 Assign Reviewing Officer

To assign reviewing officer of the individual go to Assign Reviewing Officer→Institute will come automatically →Select reviewing officer name→ Select scientist name whose reviewing officer is to be updated →Update

#### Assign Reviewing Officer

**Institute :**

**Reviewing Officer :**

**Select Scientist :**

Fig 4. – Assign Reviewing Officer

### 3.2 Project Approval (As Nodal Officer)

Project(s) submitted by scientists will be listed here in Nodal Officer’s login for approval. To approve the project, click on project name→Project details will open (see Fig. – 6, 7 and 8 )

List of Projects Waiting for Approval			
SNo	Project Code	Project Title	PI Name
1	083/S/DST	[REDACTED]	Dr. Shashi Bhushan Lal
2	083/S/IFX	[REDACTED]	Dr. Shashi Bhushan Lal
3	083/CI/DST	[REDACTED]	Dr. Shashi Bhushan Lal
4	083/CI/NAS	[REDACTED]	Dr. Mukesh Kumar
5	083/S/CPJ	[REDACTED]	Dr. Shashi Bhushan Lal
6	083/CIN/WBF	[REDACTED]	Dr. Shashi Bhushan Lal
7	083/CI/OXX	<a href="#">Artificial Intelligence enabled Biotic &amp; Abiotic Stress Detection and Advisory Mobile Application for Crops</a>	Dr. Shashi Bhushan Lal

Fig 5. – Project List pending for approval

**Project (Basic Details)**

**Project Name \*** Artificial Intelligence enabled Biotic & Abiotic **Keywords \*** artificial

**Priority Type** Institute Priority **Priority Name** Institute Priority

**Starting Date \*** 01-02-2024 **Completion Date \*** 31-03-2028

**Type of Project \***  National  International **Project Collaboration\*** Collab (ICAR)

**Funding Source\*** Other **Funding Source Name \*** Adjulnd Pvt Ltd., Hyderabad

**Total cost (Rs in Lakhs) \*** 100

**Project Discipline \***  Uni Disciplinary  Multi Disciplinary **Add Discipline\*** Computer Science with AI

**Any Extension?\***  No  Yes (1) **Any Abeyance?\***  No  Yes (1)

Fig 6. – Project details submitted by scientist

**Institute and Project Team**

**Principal Investigator:** Dr. Shashi Bhushan Lal (sb.lal@icar.gov.in)

**ICAR Team:**

S No	Name	Institute Name	Status In Project	Start Date	End Date
1	Dr.(Mrs.) Summi Tomar	CARI(AS), Bareilly	Co Principal Investigator	01/02/2024	

---

**Project (Additional Details)**

**Extensions Granted**

1  2  3  4

**Abeyance Granted**

**Start date 1**  **End Date 1**  **Start date 2**  **End Date 2**

**Project Status**  Ongoing  Completed

Activate Windows  
 Go to Settings to activate Windows.

Fig 7. – Project details submitted by scientist

To approve the project, click on Approve and enter Approval Code → Send Back to PI

Project (Additional Details)

**Extensions Granted**

1  2  3  4

**Abyence Granted**

Start date 1  End Date 1  Start date 2  End Date 2

Project Status  Ongoing  Completed

---

Approval Code:- 083/CI/OXX

Activate Windows  
Go to Settings to activate Windows.

Fig 8. – Approve project with approval code

In case of disapproval of project, click on Disapprove→Enter reason of disapproval→Send Back to PI

Project (Additional Details)

**Extensions Granted**

1  2  3  4

**Abyence Granted**

Start date 1  End Date 1  Start date 2  End Date 2

Project Status  Ongoing  Completed

---

Reason of Disapproval

Activate Windows  
Go to Settings to activate Windows.

Fig 9. – Disapprove project with reason

### 3.3 Approved Project List

List of all the approved projects will appear here. Editing option is also available here, if needed.

Click on project name→Edit (see Fig. 11) desired details of project→Update (See Fig. - 12)

List of Approved Projects			
SNo	Project Code	Project Title	PI Name
1	083/S/NAS/1	[REDACTED]	Mr. Sanjeev Kumar
2	083/CNI/IPP/pme2/1	[REDACTED]	Mr. Sanjeev Kumar
3	083/CIN/OXX/PME1	[REDACTED]	Dr. Shashi Bhushan Lal
4	083/CNI/IPP/approved	<a href="#">Development of novel Strategy for the detection and tackling of Antimicrobial resistant (AMR) Mastitis pathogens in dairy animals and environment using nanotechnology</a>	Dr. Shashi Bhushan Lal
5	083/CI/DBT/we4t567u	[REDACTED]	Dr. Shashi Bhushan Lal
6	083/CI/OXX/676767	[REDACTED]	Dr. Shashi Bhushan Lal

Fig. 10 – List of approved projects

Project (Basic Details) Code:-083/CNI/IPP/approved

<p><b>Project Name *</b> <input type="text" value="Development of novel Strategy for the"/></p> <p><b>Priority Type</b> <input type="text" value="Institute Priority"/></p> <p><b>Starting Date *</b> <input type="text" value="28-02-2024"/></p> <p><b>Type of Project *</b> <input checked="" type="radio"/> National <input type="radio"/> International</p> <p><b>Funding Source *</b> <input type="text" value="Institute Plan Project"/></p>	<p><b>Keywords *</b> <input type="text" value="nano technology, antimicrobial"/></p> <p><b>Priority Name</b> <input type="text" value="Institute Priority"/></p> <p><b>Completion Date *</b> <input type="text" value="31-03-2024"/></p> <p><b>Project Collaboration *</b> <input type="text" value="Collab (Lead Non ICAR + ICAR)"/></p>
<p><b>Project Discipline *</b> <input checked="" type="radio"/> Uni Disciplinary <input type="radio"/> Multi Disciplinary</p> <p><b>Selected Disciplines</b> <input type="text" value="Veterinary Pathology"/></p>	
<p><b>Any Extension?</b> <input checked="" type="radio"/> No <input type="radio"/> Yes (1)</p>	<p><b>Any Abyeance?</b> <input checked="" type="radio"/> No <input type="radio"/> Yes (1)</p>

Activate Windows  
Go to Settings to activate Windows

Fig. 11 – Edit project details



Project (Basic Details) Code:-083/CNI/IPP/approved

**Project Name \***  **Keywords \***

**Priority Type**  **Priority Name**

**Starting Date \***  **Completion Date \***

**Type of Project \***  National  International **Project Collaboration\***

**Funding Source\***

**Project Discipline \***  Uni Disciplinary  Multi Disciplinary **Add Discipline\***

**Selected Disciplines**

**Any Extension? (1)**  No  Yes **Any Abeyance? (1)**  No  Yes

Activate Windows  
Go to Settings to activate Windows.

Fig. 12 – Update project details

### 3.4 Publication Approval (As Nodal Officer)

List of all publications submitted to Nodal officer is available here. It is represented in two tables.

- List of Publication(s) Pending/Disapproved
- List of Publication(s) Approved

**List of Publication(s) Pending/Disapproved**

S.No.	Submitted By	Title	Keyword(s)	Journal Name	Volume	Status	Report
1	Dr. Shashi Bhushan Lal	Revelation of genes associated with energy generating metabolic pathways in the fighter type Aseel chicken of India through skeletal muscle transcriptome sequencing	Aseel; Punjab Brown; muscle; transcriptome.	Animal Biotechnology	6	Pending	<a href="#">View</a>
2	Dr. Shashi Bhushan Lal	An Algorithm for Automatic Text Annotation for Named Entity Recognition using spaCy Framework	Named Entity Recognition, Natural Language Processing, Tagging, Text Annotation, Text Mining	"American Journal of Physiology-Regulatory Integrative	9	Disapproved with Remarks - Empty	<a href="#">View</a>
3	Dr. Shashi Bhushan Lal	Development of LR-PCA Based Fusion Approach to Detect the Changes in Mango Fruit Crop by Using Landsat 8 OLI Images1. IEEE Access, 10:85764-85776.	mango, fusion	IEEE Access		Disapproved with Remarks - test	<a href="#">View</a>

Activate Windows

Fig. 13 – List of publications disapproved and pending for approval

Click on View as seen in Fig. 13, details of publication received will open (see Fig. 14). It is in editable form. Nodal officer will update the same if required before approval.

Publication Submitted by Dr. Shashi Bhushan Lal, sb.lal@icar.gov.in Journal View and Edit(Enabled) <<Back

**Title\*** Revelation of genes associated with energy **Keywords (separated by comma(s))\*** Aseel; Punjab Brown; muscle; transcriptome.

**Proof** (Max file size: SMB, pdf only) \* **URL** https://www.researchgate.net/publication/371415.

**Pages** **Date of Publication \*** 01-03-2024  
Year selection is Mandatory for populating journal list

**Publication DOI**

**Publication Language \*** English (United States)

**Journal Rating \***  NAAS  Thomson Reuters  Other

**Journal Name \*** Animal Biotechnology **Project Name \*** Agricultural Research Management System

**NAAS Rating \*** 8.8 **ISSN Number \*** XYE-102965737837/123

**Journal Volume** 6

**Add ICAR Author(s) \*** Activate Windows  
Go to Settings to activate Windows.

Select an Option Add

Fig. 14 – Details of publication submitted by scientist

**Add ICAR Author(s) \***

Select an Option Add

S.No.	Scientist Name	Email	Institute	Authorship	Author Priority	
1	Dr. Shashi Bhushan Lal	sb.lal@icar.gov.in	ICAR-Indian Agricultural S	Other Author	1	<a href="#">Edit</a> <a href="#">Delete</a>

**Add NON-ICAR Author(s)**

**Name:**  **Organisation Name:**

**Authorship:** First Author **Email:**

Add

S.No.	Name	Organization Name	Email	Authorship	Author Priority	
1	Dr. Shbana Begam	ICAR-National Institute fo	shaba.shb@gmail.com	Corresponding Author	3	<a href="#">Edit</a> <a href="#">Delete</a>

**Status \***  Approve  Disapprove **Remarks\***   
Please Enter Remarks

Send Back to Submitter Activate Windows  
Go to Settings to activate Windows.

Fig. 15 – Approve/Disapprove publication with remarks

**Please note that as Nodal Officer you need to see the uploaded proof by the uploader scientists and verify that the information about the publication entered is correct which includes title, author names, doi, keywords, pages, volume, issue and so on.**

Approval or disapproval needs to be based on the publication information entered is correct. Disapproval or Approval can be done with remarks (see Fig. 15).

The publication approved cannot be edited. It can only be viewed or deleted (see Fig. 16).

### List of Publication(s) Approved

S.No.	Submitted By	Title	Keyword(s)	Journal Name	Volume	Status	Report	
1	Dr. Shashi Bhushan Lal	An advanced approach for predicting selective sweep in the genomic regions using machine learning techniques	Selective sweep, Hard selective sweep · Soft selective sweep · Simulation · Machine learning · Random forest	Genetic Resources and Crop Evolution	01879	Approved with Remarks - Empty	<a href="#">View</a>	<a href="#">Delete</a>
2	Dr. Shashi Bhushan Lal	An advanced approach for predicting selective sweep in the genomic regions using machine learning techniques	Selective sweep, Hard selective sweep, Soft selective sweep, Simulation, Machine learning, Random forest	Genetic Resources and Crop Evolution		Approved with Remarks - Empty	<a href="#">View</a>	<a href="#">Delete</a>
3	Dr. Shashi Bhushan Lal	Evaluating Text Preprocessing Methods for Discovering Quality Topics to Improve the Information Retrieval Mechanism	Topic Model; Hyperparameters, Topic Discovery, Latent Dirichlet Allocation (LDA), Grid Search		5	Approved with Remarks - Empty	<a href="#">View</a>	<a href="#">Delete</a>

Fig. 16 – List of approved publications

#### 4. SCIENTIST (Login as Scientist)

In scientist login following options are available for entering the achievements:

- Research projects (Add, Update, Completed)
- Technology (Import from KRISHI)
- IPR (Copyright and Patent)
- Publication (Journal and Books)
- Capacity Building (Program Organized/ Attended)
- Awards (National and International)



##### 4.1 Research projects

The PI of the project will add project in ARMS. The person entering the project is taken as PI of the project by default in system. Project will be visible in login of each co-member.

The project can be of following types:

- Solo
- Collab (ICAR)
- Collab (Lead ICAR + Non ICAR)
- Collab (Lead Non ICAR + ICAR)

### 4.1.1 Add

Go to Project → Add → Enter basic Project details and Save (see Fig.17)

**New Project (Basic Details)**

<b>Project Name *</b>	<input type="text" value="Development and testing of direct seeded"/>	<b>Keywords *</b>	<input type="text" value="seeded, rice"/>
<b>Priority Type</b>	<input type="text" value="Institute Priority"/>	<b>Priority Name</b>	<input type="text" value="Institute Priority"/>
<b>Starting Date *</b>	<input type="text" value="01-04-2024"/>	<b>Completion Date *</b>	<input type="text" value="30-04-2024"/>
<b>Type of Project *</b>	<input checked="" type="radio"/> National <input type="radio"/> International		
<b>Funding Source*</b>	<input type="text" value="DBT Sponsored"/>		
<b>Total Cost (Rs in Lakhs) *</b>	<input type="text" value="10"/>		
<b>Project Discipline *</b>	<input checked="" type="radio"/> Uni Disciplinary <input type="radio"/> Multi Disciplinary		
<b>Selected Disciplines</b>	<input type="text" value="Agricultural Entomology"/>		
	<b>Add Discipline*</b>	<input type="text" value="Agricultural Entomology"/>	

Activate Windows  
Go to Settings to activate Windows.

Fig. 17 – Basic details of project

Enter the details of project members → Save and Preview (see Fig. 18)

**Institute and Project Team Addition**

**Principal Investigator:** Dr. Shashi Bhushan Lal (sb.lal@icar.gov.in)      **Lead Centre:** ICAR-Indian Agricultural Statistics Research Institute

---

**Institute**

---

**Add Project Team**

**Add Team for Selected Institute:**  
ICAR-Central Coastal Agricultural Research Institute, North Goa

	Name of Scientist	Institute	Status in Project	Start Date	
	<input type="text" value="Select"/>		<input type="text" value="Select"/>	<input type="text" value="dd-04-2024"/>	<input style="background-color: #008000; color: white; padding: 2px 5px;" type="button" value="Add"/>
1	Dr.(Mrs.) Simmi Tomar	CARI(AS), Bareilly	Co CCPI	01/04/2024	<input style="background-color: #ff0000; color: white; padding: 2px 5px;" type="button" value="Delete"/>
2	Dr.Chaudhari Ganesh Vasudeo	CCARI, North Goa	Co CCPI	01/04/2024	<input style="background-color: #ff0000; color: white; padding: 2px 5px;" type="button" value="Delete"/>

**Add Team for (Non-ICAR) Institute (Collab):**

	Name of Scientist	Institute	Email	Status in Project	Start Date	
	<input type="text" value="Select"/>			<input type="text" value="Select"/>	<input type="text" value="dd-04-2024"/>	<input style="background-color: #008000; color: white; padding: 2px 5px;" type="button" value="Add"/>
1	Mr Mukesh Kumar	CSIR	Mukesh.Kumar@Gmail.Com	Collaborating Center PI	01/04/2024	<input style="background-color: #ff0000; color: white; padding: 2px 5px;" type="button" value="Delete"/>

Activate Windows  
Go to Settings to activate Windows.

Fig. 18 – Details of project members

The details can be edited if required before sending to nodal officer for approval. Click on Edit (see Fig. 19) → Update information → Send to Nodal Officer

**Project Discipline \***  Uni Disciplinary  Multi Disciplinary **Add Discipline\*** Select One Option

**Selected Disciplines** Agricultural Entomology

**Any Extension?**  No  Yes (1) **Any Abeyance?**  No  Yes (1)

**Edit**

---

**Institute and Project Team**

**Principal Investigator:** Dr. Shashi Bhushan Lal (sb.lal@icar.gov.in) **Institute:** ICAR-Indian Agricultural Statistics Research Institute

**Edit**

**Institute** Select an Option

**Add Team for Selected Institute:**

Name	Status in Project	Start Date
<span>Select an Option</span>	<span>▼</span>	dd-mm-yyyy

S No	Name	Institute Name	Status In Project	Start Date	End Date
1	Dr.(Mrs.) Simmi Tomar	CARI(AS), Bareilly	Co CCPI	01/04/2024	
2	Dr.Chaudhari Ganesh Vasudeo	CCARI, North Goa	Co CCPI	01/04/2024	

**Add Team for (Non-ICAR) Institute (Collab):** Activate Windows

Fig. 19 – Edit the project details

**Project (Additional Details)**

**Extensions Granted**

1 dd-mm-yyyy 2 dd-mm-yyyy 3 dd-mm-yyyy 4 dd-mm-yyyy

**Abeyance Granted**

**Start date 1** dd-mm-yyyy **End Date 1** dd-mm-yyyy **Start date 2** dd-mm-yyyy **End Date 2** dd-mm-yyyy

**Project Status**  Ongoing  Completed

**Edit**

**Send To Nodal Officer**

Fig. 20 – Send project to nodal officer for approval

#### 4.1.2 Update

List of projects generated will be available here. PI of the project can view project details and edit the same.

Co-members can only view the details but not edit it.

Click on the project name to open.

PI  Other than PI

Project Details			
SNo	Project Code	Project Title	Status
1	083/S/WBF	<a href="#">Unveiling the potential of grasspea germplasm and wild species for accelerating Indian breeding Programme</a>	Basic Details Saved
2	083/CI/OXX	<a href="#">Artificial Intelligence enabled Biotic &amp; Abiotic Stress Detection and Advisory Mobile Application for Crops</a>	With Nodal Officer
3	083/CNI/IPP/approved	<a href="#">Development of novel Strategy for the detection and tackling of Antimicrobial resistant (AMR) Mastitis pathogens in dairy animals and environment using nanotechnology.</a>	Approved

Fig. 21 – List of project(s) generated with its status

### 4.1.3 Completed Projects

List of completed project(s) will be available here. Click on project name to view details.

Project Details with Completed Status			
SNo	Project Code	Project Title	Your Status
1	083/S/DST	<a href="#">[REDACTED]</a>	Principal Investigator

Fig. 22 – List of completed project(s)

## 4.2 Technology

Two options are given under technology as following:

### 4.2.1 New

The scientist will be able to import technology from KRISHI portal. Click on ‘Click to Import Technology from Krishi Portal’ → Select the technology to be imported as in Fig. 23 and 24 respectively

[Click to Import Technology from Krishi Portal](#)

Technology Developed			
Krishi Technology Code	<input type="text"/>	Technology Title	<input type="text"/>
Technology Description	<input type="text"/>	Keyword(s)	<input type="text"/>
Inventer Name	<input type="text"/>	Co-Inventer(s) Name	<input type="text"/>
<input type="checkbox"/> I certify that the above information is correct.			
			<a href="#">Save as Draft</a>
<p><b>Note:</b> In-case of any change in technology details please Log In to Krishi Portal (<a href="https://krishi.icar.gov.in/Technology/login.jsp">URL: https://krishi.icar.gov.in/Technology/login.jsp</a>)</p>			

Fig. 23 - Click to import technology from Krishi Portal

	S.No.	Name	Co_Inventors	Keywords	Principal_Inventor	Principal_Inventor_Email	Organization	Technology_Code	E
Select	1	A visible test for differentiating cow and goat milk/ meat	Rani Alex, Sushil Kumar, Umesh Singh, T.V.Raja, R.R.Alyethodi, Gyanendra Singh Sengar, B. Prakash	Visible assay, cow vs goat, milk vs meat	Rajib Deb	Rajib.Deb@icar.gov.in	ICAR-Central Institute for Research on Cattle,Meerut	201521151035364	Rajib.Deb
Select	2	Development of an in-house built LAMP assay for rapid detection of cow components adulterated in buffalo milk/meat	Umesh Singh, Sushil Kumar, A. K. Das, T. V.Raja, R.R.Alyethodi, Rani Alex, Gyanendra Sengar, B.Prakash	LAMP Assay, Co vs BUffalo; Milk ; Meat	Rajib Deb	Rajib.Deb@icar.gov.in	ICAR-Central Institute for Research on Cattle,Meerut	201521198075258	Rajib.Deb
Select	3	Artificial Neural Network based statistical methodologies developed for early prediction of post thaw	T.V.Raja, Umesh Singh, Sushil Kumar, Shrikant Tyagi, , Rani Alex, B.Prakash	ANN, PTM,Bull semen	Rajib Deb	Rajib.Deb@icar.gov.in	ICAR-Central Institute for Research on Cattle,Meerut	201521200571318	Rajib.Deb

Fig. 24 – List of technology saved in Krishi Portal

The selected technology will open up, click on ‘Save as Draft’ and the technology will be added and displayed in the list below as in Fig. 25.

[Click to Import Technology from Krishi Portal](#)

**Technology Developed**

<b>Krishi Technology Code</b>	<input type="text" value="201646848725695"/>	<b>Technology Title</b>	<input type="text" value="Multiplex CSF, JE &amp; PRRS assay Kit"/>
<b>Technology Description</b>	<input type="text" value="To detect CSF, JE, and PRRS in porcine samples, a specific set of oligonucleotide primers was"/>	<b>Keyword(s)</b>	<input type="text" value="Multiplex assay, CSF, JE, PRRS"/>
<b>Inventer Name</b>	<input type="text" value="Seema Rani Pegu"/>	<b>Co-Inventer(s) Name</b>	<input type="text" value="Rajib Deb, Pranab Jyoti Das, Gyanendra Singh Sen"/>

I certify that the above information is correct.

[Save as Draft](#)

**Note:** In-case of any change in technology details please Log In to Krishi Portal ([URL: https://krishi.icar.gov.in/Technology/login.jsp](https://krishi.icar.gov.in/Technology/login.jsp))

**Technology Submitted in ARMS 2.0**

S.No.	Technology Code	Title	Description	Principal Inventor Name	Co-Inventor(s)
1	201663933691303	Piggyplex (D) ASF, PCV2&PPV assay Kit	<a href="#">Description</a>	Seema Rani Pegu	Rajib Deb, Pranab Jyoti Das, Gyanendra Singh Sengar, S Rajkhowa, V K Gupta
2	201587623100557	CIRC-CATTLE BLAD DIAGNOSTIC KIT	<a href="#">Description</a>	Rafeeqe Rahman Alyethodi	Rajib Deb, Umesh Singh, Sushil Kumar, Rani Alex, Sheetal Sharma, Gyanendra Singh Sengar, B Prakash

Fig. 25 – List of technology imported from Krishi Portal

## 4.2.2 IPR

Information copyright or IPR can be added under this option. Fill in the desired details. The PI can directly send it for approval or save as draft to send to reporting officer later (Fig. 26)

The IPR saved is displayed on the same page.

**Technology (IPR)**

<p><b>Technology Title *</b> <input type="text" value="A visible test for differentiating cow and goat m"/></p> <p><b>Technology Type *</b> <input type="text" value="Process Developed"/></p> <p><b>Type of IPR *</b> <input type="radio"/> Copyright <input checked="" type="radio"/> Patent</p> <p><b>IPR ID *</b> <input type="text" value="12-98-45"/></p> <p><b>IPR Issued by *</b> <input type="text" value="Bulgaria Research Centre"/></p> <p><b>Proof</b> (Max file size: 5MB, pdf only) * <input type="button" value="Choose File"/> <input type="text" value="filename.pdf"/></p>	<p><b>Project Name *</b> <input type="text" value="Other than Project"/></p> <p><b>Contributors *</b> <input type="text" value="Rajib Deb, Rani Alex, Sushil Kumar, Umesh Singh"/></p> <p><b>IPR Date *</b> <input type="text" value="01-04-2024"/></p> <p><b>IPR Issuing Country *</b> <input type="text" value="Bulgaria"/></p> <p><b>IPR URL (if any)</b> <input type="text"/></p>
---	---

**Data is ready to be submitted to Reporting Officer for Approval\***  Yes  No

S.No.	IPR ID	Technology Title	Technology Type	IPR Type	Project Name	Patent Date	Issued By	Issuing Country		
1	test11166767	Piggyplex (D) ASF, PCV2&PPV assay Kit	Concept Develped	Patent	Other than Project	5/3/2024	IASRI	France		
2	564764674	CIRC-CATTLE BLAD DIAGNOSTIC KIT	Methodology Developed	Patent	Other than Project	3/4/2024	iasri	India		

Fig. 26 – Filling an IPR

## 4.3 Publication

Option to add journal paper or a book has been given under publication.

### 4.3.1 Journal Paper

Go to Publication → Journal Paper → Enter basic publication details (see Fig. 27) → Add authors → Edit Authorship (see Fig. 28) → Save as Draft



No. of Publication(s) submitted: **11** [Click to View](#)

**Journal**

**Title\***  **Keywords (separated by comma(s))\***

**Proof** (Max file size:5MB, pdf only) \*  No file chosen **URL**

filename.pdf [View](#)

**Pages**  **Date of Publication \***

*Date of Publication is Mandatory for populating journal list*

**Publication DOI**

**Publication Language \***

**Journal Rating \***  NAAS  Thomson Reuters  Other

**Journal Name \***  **Project Name \***

**NAAS Rating \***  **ISSN Number \***

**Journal Volume**

Fig. 27 – Basic details of publication

**Add ICAR Author(s) \***

S.No.	Scientist Name	Email	Institute	Authorship	Author Priority	
1	<input type="text" value="Dr. Shashi Bhushan Lal"/>	<input type="text" value="sb.lal@icar.gov.in"/>	<input type="text" value="ICAR-Indian Agricultural S"/>	<input type="text" value="First Author"/>	<input type="text" value="1"/>	<a href="#">Edit</a> <a href="#">Delete</a>
2	<input type="text" value="Dr. K.K. Chaturvedi"/>	<input type="text" value="kk.Chaturvedi@icar.gov.in"/>	<input type="text" value="ICAR-Indian Agricultural S"/>	<input type="text" value="Other Author"/>	<input type="text" value="2"/>	<a href="#">Edit</a> <a href="#">Delete</a>

**Add NON-ICAR Author(s)**

**Name:**  **Organisation Name:**

**Authorship:**  **Email:**

Fig. 28 – Save publication as draft

**No. of Publication(s) submitted : 11 (Click to View)**

**Journal**

**Title\*** Ankita Kandpal, ICAR (First Author); Kiran  
**Keywords (separated by comma(s))\*** agriculture

**Proof** (Max file size:5MB, pdf onh) \* Choose File No file chosen  
**URL**

iasri\_application (2).pdf  
[View](#)

**Pages** 20-21  
**Date of Publication \*** 20-03-2024  
*Date of Publication is Mandatory for populating journal list*

**Publication DOI**

**Publication Language \*** English (United States)

**Journal Rating \***  NAAS  Thomson Reuters  Other

**Journal Name \*** AATCC Review  
**Project Name \*** Development of novel Strategy for the detection?

Fig. 29 – Total number of publication(s) entered

As highlighted in Fig. 29, total number of publication(s) entered can be seen with its status. Click to open the list, select the publication to send for approval (see Fig. 30).

**Publication List** ✕

<a href="#">Select</a>	5	Approved	An advanced approach for predicting selective sweep in the genomic regions using machine learning techniques	Selective sweep, Hard selective sweep, Soft selective sweep, Simulation, Machine learning, Random forest	Genetic Resources and Crop Evolution		03-04-2024	Dr. Shashi Bhushan Lal
<a href="#">Select</a>	6	Not Send for Approval <a href="#">Delete</a>	Ankita Kandpal, ICAR (First Author); Kiran Kumara T M, ICAR (Corresponding Author); Suresh Pal, Non-ICAR (Other Author). (2023). Does conservation agriculture promote sustainable intensification in the rice-wheat system of the Indo-Gangetic Plains in India? Empirical evidences from on-farm studies. Current Science, 124(10):1188-1193.	agriculture	AATCC Review	6	20-03-2024	Dr. Shashi Bhushan Lal
<a href="#">Select</a>	7	Not Send for Approval <a href="#">Delete</a>	Deciphering Foot-and-Mouth Disease (FMD) virus host Tropism	Foot-and-mouth disease (FMD); KR779877; integrin; interaction; tropism.	ResearchGate	10	08-03-2024	Dr. Shashi Bhushan Lal
<a href="#">Select</a>	8	Not Send for Approval <a href="#">Delete</a>	Identification of Potential Cytokinin Responsive Key Genes in Rice Treated With Trans-Zeatin Through Systems Biology Approach	WGCNA, systems biology, co-expression, cytokinin, hub genes, QTLs	American Journal of Physiology-Regulatory Integrative	8	08-03-2024	Dr. Shashi Bhushan Lal

Fig. 30 – List of publication(s) entered with its status

### 4.3.2 Books

To enter information of book authored or edited, go to Publication → Books

Enter required details and Save.

Books Published			
Publication Type *	Books Authored	Title *	A checklist of fishes and shellfishes of the Poont
Keywords *	shell fish	Proof (Max file size:5mb, pdf only) *	Choose File filename.pdf
Source URL		Citation	
Year *	2023	Language *	English (United States)
Number of Pages *	323	ISBN Number *	978-3-16-148410-0
Publisher	Print media		
			Save

Fig. 31 – Entering details of book

## 4.4 Capacity Building

Capacity building is divided into three parts:

- Programme organized
- Programme attended
- Teaching, further divided into ‘Course Taught’ and ‘Student Guided’.

### 4.4.1 Programme Organised

To enter the details, go to Capacity Building → Programme Organised

Enter the details (as in Fig. 32) and Save.

Programme Organised					
Capacity Building Type *	Seminars	Level	National		
Title *	seminar on marine life	Broad Sub Area *	Fisheries Resource Management		
Start Date *	01-04-2024	End Date *	03-04-2024	Duration (Days)	2
No. of Male Participants *	23	No. of Female Participants *	11	Total	34
Target Group *	<input type="checkbox"/> Scientist <input type="checkbox"/> Faculty <input type="checkbox"/> Technical <input type="checkbox"/> Administration <input checked="" type="checkbox"/> Students <input type="checkbox"/> Farmers <input type="checkbox"/> Other				
Remarks			Your Role *	<input checked="" type="radio"/> Lead Organiser <input type="radio"/> Co-Organiser	
Proof (Max file size:5mb, pdf only) *	Choose File filename.pdf				
					Save

Fig. 32 – Details of programme organised

After that enter the details of other ICAR or Non ICAR organisers and Submit (see Fig. 33).

**Add Organiser**

Organisation	Institute	Email	Name
<input checked="" type="radio"/> ICAR <input type="radio"/> Non-ICAR	ICAR-Indian Agricultural Statistics Research Institute...	Dr. K.K. Chaturvedi (kk.Chaturvedi...	Dr. K.K. Chaturvedi
1	ICAR	Dr. Shashi Bhushan Lal	Sb.Lal@icar.gov.in
			IASRI, New Delhi

**Add Co-Organiser**

Organisation	Institute	Email	Name
<input type="radio"/> ICAR <input type="radio"/> Non-ICAR			

**Submit**

Fig. 33 – Addition of co-organisers

Capacity Building Type	Title	Start Date	End Date	Document Proof	Role	Submission Status		
Seminars	seminar on marine life	01/04/2024	03/04/2024	<a href="#">View</a>	Lead Organiser	Yes	<a href="#">Update</a>	<a href="#">Delete</a>

Fig. 34 – List of programme submitted

#### 4.4.2 Programme Attended

To enter the details go to Capacity Building → Programme Attended

Enter the details and submit or save as draft (Fig. 35)

**Programme Attended**

Capacity Building Type *	Conference	Level	National
Title *	Effect of environmental variables on the growth	Proof (Max file size: 5mb, pdf only) *	Choose File filename.pdf
Start Date *	01-04-2024	End Date *	02-04-2024

**Submit** **Save as Draft**

Fig. 35 – Details of programme attended.

Capacity Building Type	Activity Name	Start Date	End Date	Document Proof		
Conference	Effect of environmental variables on the growth of Asian green mussel, Perna viridis, in two different aquaculture systems in Goa, west coast of India.	01/04/2024	02/04/2024	<a href="#">View</a>	<a href="#">Update</a>	<a href="#">Delete</a>
Seminars	marine life	01/04/2024	02/04/2024	<a href="#">View</a>	<a href="#">Update</a>	<a href="#">Delete</a>
Conference	Exploring the ecosystem health of a tropical Indian estuary using mass-balanced ecosystem model.	01/04/2024	02/04/2024	<a href="#">View</a>	<a href="#">Update</a>	<a href="#">Delete</a>

Fig. 36 – List of programme attended

#### 4.4.3 Teaching

Under teaching, following two options are given:

### 4.4.3.1 Course Taught

Go to Capacity Building → Teaching → Course Taught

Enter the details and Save as per Fig. 37

The screenshot shows a form titled "Course Taught" with the following fields and values:

- Degree \***: PG
- Semester/Trimester \***: II
- Course Title \***: Advanced Data Structure
- Course Number \***: 22
- Credit Hour \***:
  - Practical: 1
  - Theory: 1
- Year**: 2023- 24

A "Save" button is located at the bottom right of the form.

Fig. 37 – Details of course taught

The course added can later be edited and send to reporting officer for approval.

The screenshot shows the same "Course Taught" form, but with the following values:

- Degree \***: --Select Degree--
- Semester/Trimester \***: --Select Semester/Trimester----
- Course Title \***: (empty)
- Course Number \***: (empty)
- Credit Hour \***:
  - Practical: Practical
  - Theory: Theory
- Year**: 2022- 23

A green message "Added Successfully" is displayed below the form, and a "Save" button is at the bottom right.

S. No	Degree	Course title	Credit hour(P+ T)	Semester	Course Number	Year		
1	PG	software engineering	2 + 2	II	24	2022-23	<a href="#">Update</a>	<a href="#">Delete</a>
2	PG	Advanced Data Structure	1 + 1	II	22	2023-24	<a href="#">Update</a>	<a href="#">Delete</a>

Fig. 38 – Course added is displayed in the list.

### 4.4.3.2 Student Guided

Go to Capacity Building → Teaching → Student Guided

Enter the details and Save as per Fig. 39

The information added can later be edited and send to reporting officer for approval.

Student Guided			
<b>Degree *</b>	<input type="text" value="UG"/>	<b>Discipline *</b>	<input type="text" value="Agricultural Extension"/>
<b>Student Name *</b>	<input type="text" value="Monica"/>	<b>Thesis Title *</b>	<input type="text" value="Agricultural Extention"/>
<b>Completion Date *</b>	<input type="text" value="31-12-2023"/>	<b>Co-Chair Person Email* (ICAR Email)</b>	<input type="text" value="rita.grover@icar.gov.in"/>
<b>Is it ready to be submitted to Reporting Officer ?</b>			<input type="radio"/> Yes <input checked="" type="radio"/> No
			<input type="button" value="Save"/>

Fig. 39 – Details of Student Guided

## 4.5 Awards

The information of awards will be updated here. Enter the details and submit to reporting officer or save to view and edit later.

Awards			
<b>Award Type *</b>	<input checked="" type="radio"/> National <input type="radio"/> International	<b>Award Category *</b>	<input type="text" value="ICAR Awards"/>
<b>Award Name *</b>	<input type="text" value="ICAR-Lal Bahadur shastri Outstanding Young Scienti..."/>	<b>Proof Document (Max file size: 5mb; pdf only)</b>	<input type="button" value="Choose File"/> filename.pdf
<b>Year *</b>	<input type="text" value="2022"/>	<b>Is it ready to be submitted to Reporting Officer ?</b>	
		<input checked="" type="radio"/> No <input type="radio"/> Yes	
			<input type="button" value="Save"/>

Fig. 40 – Details of award